

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Bläse et al.
Serial No.: Not Yet Assigned
For: MEMBRANE MODULE
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Art Unit: Not Yet Assigned
Attorney Docket No. 608.0008USU

Box Patent Application
Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

PRELIMINARY AMENDMENT

Prior to examination, please amend the above identified patent application as follows:

In the Claims:

Please cancel claims 1-9 and replace them with claims 10-18 as follows:

10. A process for the production of a membrane module, comprising a number of rod-shaped, ceramic filter elements, which are arranged parallel to one another and are clamped at the rod ends by covers, which in turn run perpendicular to rods, and also seals, which are provided between the ends of the rods, as well as openings in the covers, which is characterized by the following features:

the individual seal is produced in part by making its inner openings to the finished size, which is specified for enclosing the end of the rod, while the outer surface of seal remains unprocessed, so that a blank seal is formed;

then the blank seal is attached onto a holder, which has outer dimensions in the attachment region that correspond to the average outer dimension of all filter elements or a plurality of filter elements;

then the blank seal attached to the holder is processed on its outer surface, so that it attains a nominal size and thus becomes the finished seal;

then the finished seal is attached onto the terminal region of a filter element and, together with the other elements, is assembled into a finished membrane module.

11. The process according to claim 10, further characterized in that the terminal regions of each filter element are under-dimensioned relative to the main region.

12. The process according to claim 1, further characterized in that the terminal regions of filter elements are reinforced at least on their lateral surfaces, and optionally on their front surfaces, so that there is no contact between the medium to be filtered and the

material of the seal during operation of the membrane module.

13. A membrane module, produced according to the method of claim 10, with a number of rod-shaped ceramic filter elements wherein the rods are arranged parallel to one another and clamped on their ends by covers, which in turn run perpendicular to the rods, and are the components of a housing, which encloses the rods; and seals are provided between the ends of the rods and the openings in the covers.

14. A membrane module according to claim 13 with a number of rod-shaped ceramic filter elements wherein the rods are arranged parallel to one another, and are clamped on their ends by covers which run perpendicularly to the rods and are components of a housing, which encloses the rods; and seals are provided between the ends of the rods and openings in the covers; and the terminal regions of the rods are the same size as the main parts of the rods or are under-dimensioned relative to the main part.

15. A membrane module according to claim 13 with a number of rod-shaped ceramic filter elements wherein the rods are arranged parallel to one another, and are clamped on their ends by covers which in turn run perpendicular to the rods and are the components of a housing, which surrounds the rods; and seals are provided between the ends of the rods and openings in the covers; and the terminal regions of the rods are reinforced at least on their periphery and also optionally on their front side, so that the medium to be filtered

cannot come into contact with the material of the seal.

16. The membrane module according to claim 13, further characterized in that the permeate outlet connection is arranged on the housing such that the inside space of the housing is completely emptied of permeate when the module is not in operation.

17. The membrane module according to claim 13, further characterized by the following features:

each cover comprises an outer plate, an inner plate, as well as a seal, enclosed between these plates;

a free space remains between the outer plate and the inner plate, radially outside the seal;

the seal is reinforced on its periphery such that its extension out into the free space when the outer plate and the inner plate are clamped together is hindered or completely eliminated.

18. The membrane module according to claim 17, further characterized in that a collar surrounds the seal in the region of the free space or is embedded in seal.

REMARKS

Claims 10 to 18 are pending in this application. Original claims 1-9 have been canceled. Applicant has rewritten the original claims to remove any multiple dependencies and references to the drawings.

Respectfully submitted,



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Charles N.J. Ruggiero, Esq.

Attorney for Applicant

Reg. No. 28,468

Ohlandt, Greeley, Ruggiero

& Perle, L.L.P.

One Landmark Square, 10th Floor

Stamford, CT 06901-2682

tel. (203) 327-4500

fax. (203) 327-6401